







DRIVING INNOVATION AND NEW REVENUE OPPORTUNITIES IN THE DIGITAL WORLD WITH AN API FIRST APPROACH

Mindtree conceptualised and built a scalable, cost effective OpenAPI solution for a major European airline group. We further advanced the client's OpenAPI initiative by integrating the booking functionality for richer travel experiences, which in turn, strengthened their direct distribution strategy.

Business Outcomes

-  10% savings in license cost
-  Growth in sales through increased brand visibility, with ability to target new markets by the addition of a completely new revenue channel
-  Improved booking experience for the airline customers
-  Positioned the client as a tech savvy innovative organization in their industry

The Client

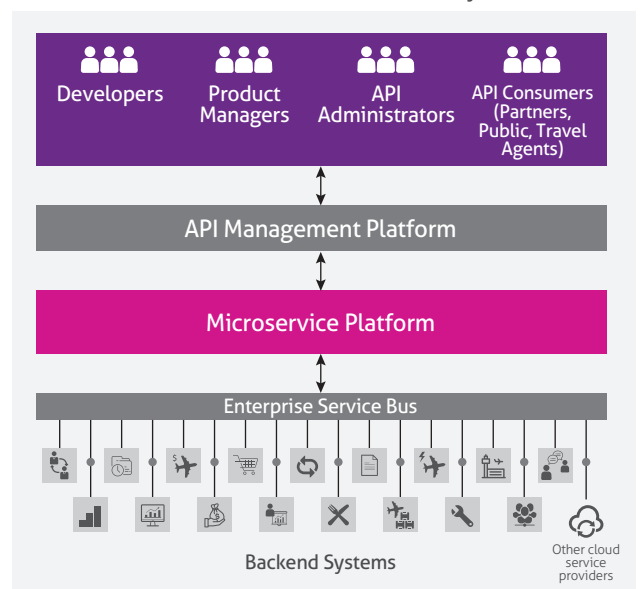
Our client is a major European aviation group comprising several member airlines and aviation services

The Challenge

The client wanted to build a solution for partners, travel agents & public to make data available more widely, in effect create a new revenue channel for themselves. The product's core feature would be to expose the airline's data to travel agents, public & partners, who can register (self-service API registration) to integrate either mobile apps, web or any media of usage.

The client decided to create an Open Application Programming Interface (API) which exposes their data and functions to developers in the outside world, via the internet. This OpenAPI would also be available to their own service providers and departments as well, to develop internal services.

The customer was looking for a technology partner who could conceptualize and build a highly scalable new Open API architecture, in a cost-effective manner. The solution should allow public, partners & travel agents to consume services for their requirements.



Mindtree's Approach:

The initial goals that were set out for the OpenAPI initiative were to provide controlled access, connect easily to consume APIs, provide external reachability and leverage internet standards.

Mindtree transitioned from an existing vendor & completely reviewed the existing OpenAPI solution proposed by them, which was not scalable & involved high licensing cost. Mindtree proposed a revamped solution, aligned with the client's long-term strategy of a preferred technology stack & cost effectiveness. The high-level solution architecture is depicted here. Mindtree engineered the solution development in three phases:

Phase 1: Design and Prototyping

- i. Architecture, design, development & testing using various proprietary and open source technologies, that align with the client's technology guidelines
- ii. Deliver the prototype to understand client feedback & revisit if there are any open points to be addressed










Phase 2: Incremental product development using Agile Methodology

- i. Contract first approach to support new development of APIs allowing the public/partners to consume mock services for their developments.
- ii. Micro Service oriented architecture that easily integrates with existing backend systems and provides re-usable services
- iii. Scalable design that can support product growth for the next 5 years

Phase 3: Production deployment support working in close collaboration with client and solution hosting provider



Highlights of Solution:

-  Just 12 hours after onboarding of the new OpenAPI, the first booking from an individual was registered
-  High availability system (99.95%) without performance degradation
-  Self Service API registration & documentation to integrate with client APIs
-  Integration with multiple security models
-  Migration proposed to decommission the expensive software components as well as reduce operational costs
-  Contract first approach (swagger & mock services) for all new API development, which led to quicker turnaround for new API development & hosting
-  Standard RESTful APIs using HTTPs/HTTP over JSON & XML, with Swagger Integrated/ enabled for every API
-  Adopting the DevOps approach for solution delivery
-  Hosting on cloud platform supporting containers

About Mindtree

Mindtree [NSE: MINDTREE] is a global technology consulting and services company, helping enterprises marry scale with agility to achieve competitive advantage. "Born digital," in 1999 and now a Larsen & Toubro Group Company, Mindtree applies its deep domain knowledge to 300+ enterprise client engagements to break down silos, make sense of digital complexity and bring new initiatives to market faster. We enable IT to move at the speed of business, leveraging emerging technologies and the efficiencies of Continuous Delivery to spur business innovation. Operating in 18 countries and over 40 offices across the world, we're consistently regarded as one of the best places to work, embodied every day by our winning culture made up of over 21,000 entrepreneurial, collaborative and dedicated "Mindtree Minds."